

Please check whether you have got the right question paper.

- N.B:
1. **All questions are compulsory.**
 2. **Figures to the right indicate full marks.**
 3. **Draw neat and labelled diagrams wherever necessary.**

Q.1 A. Choose the **correct option** from the following:

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- The chloroplast in *Spirogyra* is _____.
 (i) Disc shaped (ii) Spiral (iii) Stellate (iv) Peltate
- Spirogyra* belongs to Division _____.
 (i) Chlorophyta (ii) Phaeophyta (iii) Rhodophyta (iv) Cyanophyta
- _____ reproduction is absent in *Nostoc*.
 (i) Vegetative (ii) Sexual (iii) Asexual (iv) None of the above
- Reserve food material in Chlorophyta is _____.
 (i) oil and proteins (ii) starch and pyrenoids (iii) protein and starch (iv) protein and fats
- Mass of delicate , white cottony threads in fungi is known as _____.
 (i) mycelium (ii) spore (iii) columella (iv) rhizoids
- Cytoplasm in the hyphae of *Rhizopus* contains _____.
 (i) One nucleus (ii) numerous chloroplasts (iii) numerous minute nuclei (iv) few vacuoles
- Rhizopus* belongs to order _____.
 (i) Mucorales (ii) Erysiphales (iii) Aspergillales (iv) Pucciniales
- _____ is a Liverwort.
 (i) *Funaria* (ii) *Anthoceros* (iii) *Polytrichum* (iv) *Riccia*
- Vegetative thallus of *Riccia* is a _____.
 (i) gametophyte (ii) sporophyte (iii) sporophyte on gametophyte
 (iv) gametophyte on sporophyte
- The ventral surface of *Riccia* thallus possesses _____.
 (i) scales (ii) smooth walled rhizoids (iii) tuberculated rhizoids (iv) All of the above

B. Answer the following in **one sentence**:

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- (a) What is heterocyst?
- (b) Define conjugation in Algae.
- (c) Name the female sex organ in *Aspergillus*.
- (d) Name the asexual reproducing body in *Rhizopus*.
- (e) Give the functions of scales in *Riccia*.

Q.2 Answer **any two** from the following:

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- (a) Write a detailed note on range of thallus in Chlorophyta.
- (b) Explain methods of vegetative and sexual reproduction in *Nostoc*.
- (c) Describe the types of conjugation in *Spirogyra*.
- (d) Give a detailed account of economic importance of Algae.

Q.3 Answer **any two** from the following:

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- (a) Describe asexual reproduction in *Rhizopus*. Add a note on its systematic position.
- (b) Discuss sexual reproduction in *Aspergillus*.
- (c) Give economic importance of Fungi.
- (d) Describe the modes of nutrition in Fungi.

Q.4 Answer **any two** from the following:

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- (a) With the help of neat, labelled diagram, explain the alternation of generations in *Riccia*.
- (b) Give a detailed account of the V.S. of *Riccia* thallus.
- (c) Describe the external morphology of *Riccia*. Add a note on its systematic position.
- (d) Discuss the sporophytic generation in *Riccia*.

Q.5 Write short notes (**any four**)

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- a) Structure of *Nostoc* filament
- b) Vegetative cell of *Spirogyra*
- c) Ascocarp of *Aspergillus*
- d) Fungi as food
- e) Structure of antheridia and male gamete in *Riccia*
